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Reply dated 6 December 2005
Responsive to Office Action mailed on 4 October 2005

REMARKS

Amendment to the Description

A paragraph has been amended to identify the U.S. patent application publications corresponding to two previously listed patent applications.

Amendment to the Claims

Claim 1 has been amended to incorporate the limitations originally recited in **Claim 5**.

Claim 2 has been amended to more specifically describe the altered regions as being embossed, the deformation as being an embossment, and the unaltered regions as correspondingly being unembossed. Support for this more specific description is found in the specification as originally filed, including in the first two paragraphs on page 6 and in the patent identified in the first of these two paragraphs and incorporated by reference by way of the statement of incorporation beginning on page 13 at line 25.

Claim 3 has been amended to more clearly refer to the extensible portion first recited in **Claim 1**.

Claim 4 has been amended to likewise refer more clearly to the extensible portion first recited in **Claim 1**.

Claim 5 has been amended to describe the extent to which the inwardly folded portions of the chassis overlap the side flaps. Support for this change is found in the paragraph beginning on page 8 at line 20 in the specification and in Figures 1-6, 13, 15, and 20.

Claim 20 has been amended to incorporate the limitations originally recited in **Claim 5**.

Claim Rejections Under 35 U.S.C. § 102 – Sasaki *et al.*

Claims 1-6, 8-15, and 18 were rejected under 35 USC § 102(b) as being anticipated by European Patent Application No. EP 0 951 890 to Uni-Charm Corporation (Sasaki *et al.*) However, it was not shown in the Office Action that the cited reference teaches every element of any of the rejected claims in their present form.

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Before proceeding, it should be noted that in the Office Action, the following equivalences of structural elements were alleged.

Element of reference	Element of present invention
outer cover 2	chassis 100
inner sheet 2A of the outer cover 2	interior surface 102 of the chassis 100
outer sheet 2B of the outer cover 2	exterior surface 104 of the chassis 100
liquid absorbent pad 3	absorbent assembly 200
liquid absorbent core 41 of the liquid absorbent pad 3	absorbent core storage component 272 of the absorbent core 250 of the absorbent assembly 200
topsheet 21 (misidentified one place as 22) of the absorbent pad 3	absorbent core acquisition component 290 of the absorbent core 250 of the absorbent assembly 200
barrier cuff 24	side flap 247

It is respectfully presumed that the use of the term "waste" throughout the Office Action was intended to mean "waist", as in the phrase "waste regions" actually meaning "waist regions". This response has been written on the basis of this presumption.

Claim 1

Claim 1 as amended contains the limitations that laterally opposing portions 107 of the chassis 100 in the crotch region 37 are folded laterally inward to overlap the respective side flaps 247 and are attached to the respective side flaps. The structure cited in the Office Action does not correspond to the claimed structure. The shortcomings relative to meeting the limitations of the claim include the following.

1. Laterally opposing portions of the outer cover 2 would have to be folded laterally inward. However, no mention of any such lateral folding was made in the Office Action.

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2. The laterally opposing portions of the outer cover 2 that would have to be folded laterally inward would have to be disposed in the crotch region 8. However, no mention of the portions of the outer cover 2 in the crotch region 8 was made in the Office Action.

3. The laterally opposing portions of the outer cover 2 in the crotch region 8 that would have to be folded laterally inward would have to overlap the barrier cuffs 24. However, the allegation in the Office Action is only that the front and rear "sections" of the outer cover 2, *i.e.*, the outer cover 2 in the front and rear waist regions 6 and 7, rather than in the crotch region 8, overlap the barrier cuffs 24.

4. The laterally opposing portions of the outer cover 2 in the crotch region 8 would have to overlap the barrier cuffs 24 as a result of being folded laterally inward. However, no mention of any such result was made in the Office Action.

5. The laterally opposing portions of the outer cover 2 in the crotch region 8 that would have to be folded laterally inward would have to be attached to the barrier cuffs 24. It was stated in the Office Action that the barrier cuffs 24 are attached to the outer cover 2 and it is presumed that this statement was intended to address this limitation now in **Claim 1** as it previously appeared in **Claim 5**, although no particular claim was mentioned. However, this statement in the Office Action mischaracterized the actual disclosure in the reference. Specifically, according to the reference, the barrier cuffs 24 are attached to the topsheet 21 and to the backsheet 22. This arrangement is described explicitly in column 5 at lines 11-21 and is shown in Figure 4, which the referenced text in column 5 describes. The topsheet 21 and the backsheet 22, like the barrier cuffs 24, are elements of the absorbent pad 3, not elements of the outer cover 2. This fact is apparent from the explicit description beginning in column 4 at line 21 and continuing through column 5 at line 11 and to Figures 2, 3, and 4 of the reference. Thus, the attachment of the barrier cuffs 24 to the topsheet 21 and to the backsheet 22 constitutes merely an attachment of elements of the absorbent pad 3 to other elements of the absorbent pad 3, rather than an attachment of the barrier cuffs 24 to the outer cover 2.

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Therefore, it has not been shown that the reference teaches all of the limitations of **Claim 1** as amended. Furthermore, because **Claims 2-6** and **8-15** depend from and thereby contain all of the limitations of **Claim 1**, it has likewise not been shown that the reference teaches all of the limitations of any of these dependent claims. In addition, the following points bear comment with respect to dependent **Claims 2-6** and **8-15**.

Claim 2

Claim 2 has been amended to more specifically describe the distinct regions **310** containing ridges **312** and valleys **314** as being embossed and to describe the deformation of these regions as being embossment. The structure cited in the Office Action does not correspond to the claimed structure. In particular, the gathering of the outer cover **2** by the first elastic members **11** and the second elastic members **12** in the reference is clearly not embossment.

Claim 5

Claim 5 as amended describes the extent to which the inwardly folded portions **107** of the chassis **100** in the crotch region **37** overlap the side flaps **247** in the laterally inward direction, specifically that these portions overlap less far than the proximal edge **255** of each side flap such that a portion **207** of the side flap adjacent to its proximal edge remains uncovered. The structure cited in the Office Action does not correspond to the claimed structure. The fundamental shortcomings are explained in detail above in the comments pertaining to **Claim 1**.

Additionally, even if, for the sake of argument, the allegation in the Office Action that the outer cover **2** generally “overlaps” the barrier cuffs **24** were accepted, it is clear from the description and the figures in the reference that the outer cover **2** extends farther laterally inward than specified in the claim.

It should be noted before proceeding that the terminology in the reference differs from the terminology in the present Application, such that the following correspondence of structural elements applies.

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Element of reference	Element of present invention
distal edge 27 of the barrier cuff 24	proximal edge 255 of the side flap 247
proximal edge 26 of the barrier cuff 24	side edge 237 of the absorbent assembly 200

Thus, in order to meet the limitations of **Claim 5** relative to the extent of the overlap, the outer cover 2 in the crotch region 8 would have to overlap each barrier cuff 24 laterally inwardly to a point or a line located between that proximal edge 26 and the distal edge 27 of the same barrier cuff 24 and end there, in order to leave a portion of the barrier cuff 24 adjacent to its distal edge 27 exposed. However, as shown clearly in Figures 2, 3, and 4 of the reference, the outer cover 2 in the crotch region 8 is continuous in the lateral direction from a point adjacent to the proximal edge 26 of one barrier cuff to a point adjacent to the proximal edge 26 of the other barrier cuff. In other words, the outer cover 2 extends continuously all the way across both of the distal edges 27 of the barrier cuffs 24 as well as the gap between them. Thus, no portion of either barrier cuff 24 adjacent to its distal edge 27 is left exposed.

Claim 6

Claim 6 contains the limitations that the absorbent assembly 200 is attached to the chassis 100 in a cruciform pattern of attachment 210. The structure cited in the Office Action does not correspond to the claimed structure.

The nature of a cruciform pattern is clearly described in the present specification in the paragraph beginning on page 9 at line 31 and in the immediately following paragraph, where it is explicitly explained that a cruciform attachment pattern “forms or is arranged in a cross or a “+” shape”. This explanation is consistent with the dictionary definition of cruciform as “forming or arranged in a cross” and with its derivation from the Latin *cruc-* from *crux* cross, with the addition of the English *-form* (Merriam-Webster® Online Dictionary). In addition, for reference, the cruciform pattern of attachment 210 is shown in Figures 2-6, 14, and 16-18 of the present Application.

Thus, in order to meet the limitations of **Claim 6**, the joining zones 18 and 19 of the reference would have to intersect in such a way as to form a cross. However, according to the disclosure in the reference, the joining zones 18 and 19 shown in Figure 3 extend laterally and are

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longitudinally separated from each other. In other words, the joining zones 18 and 19 do not intersect, much less cross each other, *i.e.*, the joining zones 18 and 19 do not form a cross nor are they arranged in a cross. Therefore, the joining zones 18 and 19 do not form a cruciform pattern of attachment, as would be required in order to meet the limitations of **Claim 6**.

It was stated in the Office Action that the liquid absorbent pad 3 of the reference is “connected as a whole in a cruciform manner to the outer cover”. It is presumed that this statement was intended to address the limitations of **Claim 6**, although no particular claim was mentioned. However, it is respectfully noted that the relevant limitations in this claim are that *the absorbent assembly is attached to the chassis in a cruciform pattern of attachment*. The overall shape or arrangement of the overall article has no bearing on whether or not these limitations are met. Instead, according to the equivalencies alleged in the Office Action, the pattern of attachment of the absorbent pad 3 to the outer cover 2, *i.e.*, the form of the joining zones 18 and 19, would have to be cruciform in order to meet these limitations.

Furthermore, the overall shape of the article in the reference is not cruciform, but instead is an “T” shape. There are two intersections in an “T” shape, but no two elements form a cross.

Claim 8

Claim 8 contains the limitation that the absorbent assembly 200 has a length smaller than a length of the chassis 100. This limitation was not addressed in the Office Action.

Claim 10

Claim 10 depends from **Claim 9** and thereby contains the limitations that the absorbent assembly 200 includes an absorbent core 250 and a water-impermeable lower covering sheet 25 that is disposed exteriorly of the absorbent core. In addition, **Claim 10** contains the limitations that the absorbent assembly also includes a water-impermeable bottom sheet 226 and that this bottom sheet is disposed between the lower covering sheet 25 and the absorbent core 250. The structure cited in the Office Action does not correspond to the claimed structure.

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In order to meet the limitations of **Claim 10**, the pad body 23 of the liquid absorbent pad 3 of the reference would have to include both the liquid-impervious backsheet 22 and another water-impermeable sheet, both disposed exteriorly of the absorbent core 41. However, the only layers of the absorbent body 23 that are disposed exteriorly of the absorbent core 41 are a tissue paper 43 and the backsheet 22 (column 4, line 57 through column 5, line 9). There is no indication in the reference that the tissue paper is water-impermeable.

In the Office Action, it was stated that an additional "lower liquid impervious sheet" is created in the reference by the backsheet 22 being "connected to the inner sheet 2A" of the outer cover 2. It is presumed that this statement was intended to address the limitations of **Claim 10**, although no particular claim was mentioned. However, the outer cover 2 was equated in the Office Action to the chassis of the present invention and it is explicit in the statement in the Office Action that the inner sheet 2A is an element of the outer cover 2, not an element of the liquid absorbent pad 3. Thus, the inner sheet 2A cannot be equivalent to the bottom sheet of **Claim 10**, which is an element of the absorbent assembly 200 of the present invention.

Claim 12

Claim 12 contains the limitation that the absorbent core storage component 272 contains no airfelt. This limitation was not addressed in the section of the Office Action containing the rejection of this claim.

Claim 14

Claim 14 contains the limitation that the absorbent core acquisition component 290 has a length smaller than a length of the absorbent core storage component 272. This limitation was not addressed in the Office Action.

Claim 14 also contains the limitation that the absorbent core acquisition component 290 is disposed longitudinally offset from the absorbent core storage component 272. The structure cited in the Office Action does not correspond to the claimed structure.

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The topsheet 21 of the reference was equated to the absorbent core acquisition component of the present invention on page 3 at line 3 of the Office Action (with the erroneous reference numeral 22). In order to meet the latter limitation of **Claim 14**, the topsheet 21 would have to be disposed longitudinally offset relative to the liquid absorbent core 41, which was equated to the absorbent core storage component 272 of the present invention. However, the topsheet 21 of the reference is not described or shown to be disposed in this manner relative to the liquid absorbent core 41.

It was stated in the Office Action that "the topsheet 21 is an offset of the absorbent panel whereas "offset" is defined as an agent, element, or thing that counteracts with something else". It is presumed that this statement was intended to address the latter limitation in **Claim 14**, although no particular claim was mentioned. However, it is very respectfully noted that the latter limitation of **Claim 14** is that the absorbent core acquisition component 290 is disposed longitudinally offset from the absorbent core storage component 272, not that the absorbent core acquisition component 290 "is" an offset.

It is also respectfully noted that the definition quoted in the Office Action is for a use of the term "offset" as a noun. However, the term "offset" is used in **Claim 14** in its adjectival form, as in "placed off center" and/or "displaced relative to another object". In other words, the latter limitation of **Claim 14** that the absorbent core acquisition component 290 is disposed offset from the absorbent core storage component 272 conveys to one of skill in the art that the absorbent core acquisition component 290 is displaced relative to the absorbent core storage component 272. For reference, the claimed longitudinally offset disposition is clearly shown in Figure 16 of the present Application.

Claim 15

Claim 15 contains the limitation that the chassis includes a fastening element. This limitation was not addressed in the section of the Office Action containing the rejection of this claim.

Claim 18

Claim 18 depends from **Claim 16**. However, **Claim 16** was not rejected under 35 USC § 102(b) and is not mentioned in this section of the Office Action. Fundamentally, because **Claim 18**

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depends from and thereby includes all of the limitations of **Claim 16**, if **Claim 16** is not subject to rejection under 35 USC § 102(b) in light of a particular reference, then neither is **Claim 18** properly subject to such a rejection, because a reference that fails to teach all of the limitations of one claim likewise fails to teach all of the limitations of another claim depending from that claim. Therefore, the inclusion of **Claim 18** in the group of claims rejected under 35 USC § 102(b) is not understood. An explanation for the listing of **Claim 18** in this section of the Office Action is hereby requested, so that a full response can be made.

Cohesive

It is not understood why the term “cohesively” was mentioned in the Office Action on page 2. The term “cohesive” appears in only **Claims 7 and 18**. **Claim 7** was not rejected under 35 USC § 102(b) and is not mentioned in this section of the Office Action. Also, as noted above, **Claim 18** depends from **Claim 16**, which was not rejected under 35 USC § 102(b) and is not mentioned in this section of the Office Action. An explanation of the reason for mentioning this term on page 2 of the Office Action is hereby requested, so that a response can be made.

In light of the mention of the term, it is noted that it was stated in the Office Action that “[t]he front and rear waste [*sic*: waist?] sections are cohesively (held together and resist separation) bonded together at spots 9, (Column 2, lines 41-44)”. It is presumed that this statement was intended to address the limitation in **Claim 18**, although no particular claim was mentioned. It is also respectfully presumed that the intention was to refer to column 3, line 41-44, given that the description in column 2 at lines 41-44 is of the barrier cuffs 24, rather than of the bonding at the spots 9.

It is noted that the above statement from the Office Action appears to be a “definition” of the term “cohesive”. However, it is improper to substitute an arbitrary “definition” for the explicit definition and clear and complete description provided in the present Application as filed. The term “cohesive” is explicitly defined on page 4 at lines 3 and 4 of the specification as filed, where it is recited that “[t]he term “cohesive” refers to the property of a material that sticks to itself but does not to any significant degree stick to other materials.” This definition in the specification is consistent with the usage of this term in the relevant field of art, including in the

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U.S. Patent cited in the description as disclosing suitable synthetic cohesive products, which patent is incorporated in its entirety by reference by way of the statement of incorporation beginning on page 13 at line 25. It is further respectfully noted that the form and function of a cohesive fastening patch, as a specific example of a cohesive fastening element, is fully described in the paragraph beginning on page 7 at line 6 of the specification as filed. To substitute an arbitrary "definition" would improperly eviscerate both the cited U.S. Patent and the present disclosure. Thus, there is no reasonable basis for the substitution of an arbitrary "definition" of the term "cohesive" in an attempt to thereby make the recitation of Claim 18 read on the disclosure of the reference.

Summary with respect to rejections under 35 USC § 102(b)

It has not been shown that the cited reference teaches all of the limitations of any of the rejected claims. Accordingly, it is respectfully requested that the rejections of Claims 1-6, 8-15, and 18 under 35 USC § 102(b) as being anticipated by European Patent Application No. EP 0 951 890 to Uni-Charm Corporation (Sasaki *et al.*) be reconsidered and withdrawn.

Claim Rejections Under 35 U.S.C. § 103 – Sasaki *et al.* in view of Putzer *et al.*

Claims 7, 16, 17, and 19-20 were rejected under 35 USC § 103(a) as being unpatentable over the same European Patent Application No. EP 0 951 890 to Uni-Charm Corporation (Sasaki *et al.*), in view of U.S. Patent No. 6,102,892 to Putzer *et al.* However, it was not shown in the Office Action that the requirements of MPEP 2143 for the establishment of a *prima facie* case of obviousness have been met with respect to any of the rejected claims in their present form by reference to the cited references, either singly or in combination.

According to MPEP § 2143:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

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Claim 7

Claim 7 contains the limitations that the diaper of **Claim 1** comprises cohesive fastening elements disposed on both an interior surface of the disposable diaper and an exterior surface of the disposable diaper such that the front waist region may be fastened over the back waist region or the back waist region may alternatively be fastened over the front waist region to encircle a waist and a leg of a wearer. *None of these limitations was addressed in the Office Action.*

Claim 16

Independent **Claim 16** contains the limitations that the chassis **100** includes a fastening element **110**, **120** and that the fastening element is openable and refastenable. The entire disclosure of the Sasaki *et al.* reference is directed to a “pants type disposable diaper” (title, Abstract, paragraphs 0001, 0007, 0013, 0014, 0022, Claims). The nature of a “pants type disposable diaper” is described in the Sasaki *et al.* reference and shown in its Figure 1 as having “spots 9 intermittently arranged along” the “transversely opposite side edges”, where the “front and rear waist regions 6, 7” are “placed flat upon each other and joined together...to form a waist-opening 13 and a pair of leg-openings 14” (column 3, lines 38-45). There is no indication in the disclosure of the Sasaki *et al.* reference that these spots 9 are anything other than permanent bonds and, in fact, it was explicitly admitted in the Office Action that the Sasaki *et al.* reference fails to disclose the claimed “re-fastenable fastening element” (Office Action, page 4).

Despite this, it was alleged in the Office Action that it would have been obvious to modify the article of the Sasaki *et al.* reference with the fastening means of the Putzer *et al.* reference “to secure the article to the wearer”. This allegation is without basis in the references, themselves. The repeated recitation in the Sasaki *et al.* reference that it is directed to a “pants type disposable diaper” explicitly highlights the inventors’ focus on a pre-closed form of a diaper, *i.e.*, on a diaper form that obviates the necessity of closing the sides and/or manipulating a fastening means while applying the diaper to the body of a wearer. By its very nature, the pants form of a disposable diaper does not require manipulatable fastening means in order “to secure the article to the wearer”. To deny the benefit of this feature and thereby require the user to manipulate

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fasteners while applying the diaper onto the wearer is certainly not suggested by the inventors in the Sasaki *et al.* reference.

On the other hand, the disclosure of the Putzer *et al.* reference is directed to a diaper having fastening means that must be manipulated in order to apply the diaper onto a wearer, as is explicitly clear in the single paragraph where this subject is mentioned (column 8, lines 15-29). No mention of “pants type disposable diapers”, *i.e.*, pre-closed diapers, is made by the inventors in the Putzer *et al.* reference. Specifically, no desire or need is revealed in the Putzer *et al.* reference to modify a pants-type diaper to have manipulatable fastening means in order “to secure the article to the wearer”.

Therefore, it is respectfully averred that the only basis for the allegation in the Office Action that it would have been obvious to modify the article of the Sasaki *et al.* reference with the fastening means of the Putzer *et al.* reference is *impermissible hindsight* in light of the disclosure of the present Application.

Claim 17

Because **Claim 17** depends from and thereby contains every limitation of **Claim 16**, the above argument applies to **Claim 17**, as well.

Claim 19

Because **Claim 19** depends from and thereby contains every limitation of **Claim 16**, the above argument applies to **Claim 19**, as well. In addition, the limitation of **Claim 19** that the mechanical fastener is adapted to engage a nonwoven was not addressed in the Office Action. This type of mechanical fastener is described in the last two lines on page 6 of the present Application. However, in the Putzer *et al.* reference, no such adaptation for engagement with a nonwoven is mentioned. In fact, the only fasteners 80 that are actually shown are explicitly described to be “the male or hook portion of a hook-and-loop fastener, which are constructed to releasably adhere to a landing zone patch (not shown) attached to the front waistband section of the diaper to provide a refastenable fastening system” and it is further explicitly revealed that “[i]n the shown configuration, the landing zone patch comprises the female or loop portion of a

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hook-and-loop fastener" (column 8, lines 23-28). Thus, it has not been shown that the cited references, either alone or in combination, teach or suggest all of the limitations of **Claim 19**.

Claim 20

Like **Claim 1**, independent **Claim 20** has been amended to incorporate the limitations originally recited in **Claim 5**. Thus, **Claim 20** as amended contains the limitations that laterally opposing portions 107 of the chassis 100 in the crotch region 37 are folded laterally inward to overlap the respective side flaps 247 and are attached to the respective side flaps. The structure cited in the Office Action does not correspond to the claimed structure. The shortcomings of the Sasaki *et al.* reference are explained above with respect to the rejection of **Claim 1** under 35 USC § 102(b) and the same shortcomings apply to the rejection of **Claim 20**. The Putzer *et al.* reference fails to remedy the delineated shortcomings of the Sasaki *et al.* reference.

Summary with respect to rejections under 35 USC § 103(a)

The requirements of MPEP 2143 for the establishment of a *prima facie* case of obviousness have not been met with respect to any of the rejected claims. Accordingly, it is respectfully requested that the rejections of **Claims 7, 16, 17, and 19-20** under 35 USC § 103(a) as being unpatentable over European Patent Application No. EP 0 951 890 to Uni-Charm Corporation (Sasaki *et al.*) in view of U.S. Patent No. 6,102,892 to Putzer *et al.* be reconsidered and withdrawn.

Summary of this Reply

The description and the claims have been amended. The rejections have been argued. No new matter has been added.

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